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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,349	03/07/2002	Hyun-Suk Yang	SEC.919	7717

7590 10/08/2003  
VOLENTINE FRANCOS, PLLC  
SUITE 150  
12200 SUNRISE VALLEY DRIVE  
RESTON, VA 20191

EXAMINER

BRAHAN, THOMAS J

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 10/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/092,349

Applicant(s)

YANG, HYUN-SUK

Examiner

Thomas J. Brahan

Art Unit

3652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

2. Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakahara et al in view of Holbrooks. Nakahara et al shows a reticle transfer and storage system, comprising;

a reticle library (1);

a plurality of reticle cassettes (2) stored in the reticle library;

a fork arm (3) disposed adjacent the cassettes, the fork arm comprising a plurality of tines for supporting a reticle, and the fork arm being movable horizontally and vertically in a working range that encompasses the interior of each of the cassettes so as to be capable of withdrawing a reticle stored in any of the cassettes; and

a linear carrier (4) disposed outside of the library and movable to a position within the working range of the fork arm, the linear carrier having a gripper for temporarily holding a reticle withdrawn from a cassette by the fork arm.

Nakahara et al varies from the claims by not having sensors for detecting the presence of the reticles at given positions with respect to the fork arm. Holbrooks shows a similar transfer system with sensors (107) on the end effector. It would have been obvious to one of ordinary skill in the art to provide the fork arm (3) of Nakahara et al with sensors, for accurate positioning of the fork arm, as taught by Holbrooks. The control system of Holbrooks has alarms, see column 10, lines 28-32, as recited in claims 2 and 5. Holbrooks uses photo sensors at the base end of the end effector, see column 9, lines 49-66, as recited in claims 3 and 6.

3. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakahara et al in view of Thomas et al. Nakahara et al shows the basic claimed reticle transfer and storage system having a reticle library (1), a plurality of reticle cassettes (2), a fork arm (3), and a linear carrier (4). It varies from the claims by not having a sensor on the fork arm. Thomas et al shows a similar transfer system end effector with a sensor (solenoid 50). It would have been obvious to one of ordinary skill in the art to provide the fork arm (3) of Nakahara et al with sensors, for accurate information regarding the gripping system, as taught by Thomas et al. The control system of Thomas et al has an alarm, see column 6, lines 50-53, as recited in claims 2 and 5.

4. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakahara et al in view of Ohsawa et al. Nakahara et al shows the basic claimed reticle transfer and storage system having a library (1), reticle cassettes (2), a fork arm (3), and a linear carrier (4). It varies from the claims by not having sensors on the fork arm. Ohsawa et al shows a similar transfer system end effector with sensors (76) for sensing the positions of wafer on or above the fork. It would have been obvious to one of ordinary skill in the art to provide the fork arm (3) of Nakahara et al with sensors, for determining the positions of the reticles as the fork approaches them, as taught by Ohsawa et al. accurate information regarding the gripping system, as taught by Ohsawa et al. The control system of Ohsawa et al has an alarm generator (101; see the top of column 8) to signal that the fork is too displaced from load, as recited in claims 2 and 5.

5. An inquiry concerning this action should be directed to Examiner Thomas J. Brahan at telephone number (703) 308-2568 on Mondays through Fridays from 9:30-7:00 EST. The examiner's supervisor, Ms. Eileen Lillis, can be reached at (703) 308-3248. The fax number for Technology Center 3600 is (703) 305-7687.

 9/24/03  
**THOMAS J. BRAHAN**  
PRIMARY EXAMINER